



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,555	05/02/2005	Wei Xu	EX03-037C-US	9452
63572	7590	01/13/2009	EXAMINER	
MCDONNELL BOEHNEN HULBERT @ BERGHOFF LLP 300 SOUTH WACKER DRIVE SUITE 3100 CHICAGO, IL 60606			MABRY, JOHN	
ART UNIT	PAPER NUMBER		1625	
MAIL DATE	DELIVERY MODE			
01/13/2009	PAPER			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,555	<b>Applicant(s)</b> XU ET AL.
	<b>Examiner</b> JOHN MABRY	<b>Art Unit</b> 1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 23 October 2008.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1,8,9,12-17 and 39-48 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1, 8, 9, 12-17 and 39-48 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

***Response to Amendment(s)***

Applicant's response on October 23, 2008 filed in response to the Office Action dated July 29, 2008 has been received and duly noted.

In view of this response, the status of the rejections/objections of record is as follows:

***Status of the Claims***

Claims 1, 8, 9, 12-17 and 39-48 are pending and rejected.

Claims 2-7, 10-11 and 18-38 have been cancelled.

Claims 39-48 are new claims.

***Specification Objections***

The objection to the title is withdrawn in view of Applicant amending the title.

***35 USC § 112 Rejection(s)***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The 112-1<sup>st</sup> rejection of claims 1, 8, 9, 12-17 and 39-48 regarding the scope of enablement for "R13, R4/R5 and R10" have not been overcome in view of Applicants amending the claims. As described in previous Non-Final Office Action, the following is not enabled: R13 being all claimed heteroalicyclic compounds, R4 and R5 being all fused cyclic rings claimed and R10 being all substituents as claimed.

Applicant has amended R4 and R5 to be taken together to form a phenyl group, but still has not overcome rejection due to phenyl group being optionally substituted with R15:

R<sup>15</sup> is independently selected from -H, halogen, -NH<sub>2</sub>, -NO<sub>2</sub>, -OR<sup>6</sup>, -N=CNR<sup>6</sup>R<sup>7</sup>, -NR<sup>6</sup>R<sup>7</sup>, -N(R<sup>6</sup>)C(=NR<sup>8</sup>)NR<sup>6</sup>R<sup>7</sup>, -SR<sup>6</sup>, -S(O)<sub>2</sub>R<sup>6</sup>, -SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, -CO<sub>2</sub>R<sup>6</sup>, -C(O)NR<sup>6</sup>R<sup>7</sup>, -C(O)N(OR<sup>6</sup>)R<sup>7</sup>, -C(=NR<sup>8</sup>)NR<sup>6</sup>R<sup>7</sup>, -N(R<sup>b</sup>)SO<sub>2</sub>R<sup>6</sup>, -C(O)R<sup>7</sup>, and R<sup>7</sup>.

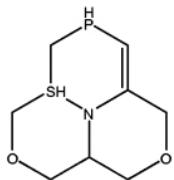
Applicant is enabled for the following substituents: halogen, unsubstituted alkoxy and unsubstituted alkyl. For example, R15 can be R7, which is can be selected from the group which contains heterocyclalkyl and heterocycl, which is clearly not enabled.

Applicant argues that Examiner has not offered no specific finding why a person of ordinary skill in the art would not know to make and use the full scope of the heteroalicyclic term R13 without undue experimentation. Examiner respectfully disagrees. R10 has similar claim coverage and is included in this response to Applicant's remarks. For example, the Specification defines the term heteroalicyclic to be as follows:

[0072] "Heteroalicyclic" refers specifically to a non-aromatic heterocyclyl radical. A heteroalicyclic may contain unsaturation, but is not aromatic.

[0071] "Heterocycl" refers to a stable three- to fifteen-membered ring radical that consists of carbon atoms and from one to five heteroatoms selected from the group consisting of nitrogen, phosphorus, oxygen and sulfur. For purposes of this invention, the heterocycl radical may be a monocyclic, bicyclic or tricyclic ring system, which may include fused or bridged ring systems as well as spirocyclic systems; and the nitrogen, phosphorus, carbon or sulfur atoms in the heterocycl radical may be optionally oxidized to various oxidation states. In a specific example, the group  $-S(O)_{0-2}$ , refers to  $-S$  (sulfide),  $-S(O)$  (sulfoxide), and  $-SO_2$  (sulfone). For convenience, nitrogens, particularly but not exclusively, those defined as annular aromatic nitrogens, are meant to include their corresponding *N*-oxide form, although not explicitly defined as such in a particular example. Thus, for a compound of the invention having, for example, a pyridyl ring; the corresponding pyridyl-*N*-oxide is meant to be included as another compound of the invention. In addition, annular nitrogen atoms may be optionally quaternized; and the ring radical may be partially or fully saturated or aromatic.

According to the definition, the following variable can be devised, which Applicant has claimed:



The above compound was searched in STN Structure Database and Aldrich Chemical Catalog and was not found. Applicant has not provided where this compound can be purchased and has not provided any guidance or direction as how this compound can be made or used. Clearly, one of ordinary skill in the art would endure an undue experimental burden regarding how to make and use this compound. This is

just one of many examples which can presented for Applicant not being enabled for the entire scope of the claimed variables.

As stated in previous Office Action, R13 being H, alkoxy, amino, alkylamino and heteroalicyclic where heteroalicyclic compounds are morpholino, pyrrolidinyl and piperidinyl; R4 and R5 fused to form phenyl; and R10 being H, alkyl, alkoxy, cyano, halo, haloalkyl does not reasonably provide enablement for R13 being all claimed heteroalicyclic compounds, R4 and R5 being all fused cyclic rings claimed and R10 being all substituents as claimed.

***Claim Rejections - 35 USC § 103***

Applicant's arguments with respect to 103(a) rejections have been fully considered and are persuasive. The 103(a) rejection of claims 1-9, 12-19 and 31-38 regarding obviousness over Tang (US 6,689,806) in view of Tang (US 6,316,429 B1 ) (PTO-1449) and in further view of US 6,569,868 (PTO-1449) have been withdrawn in view of Applicant's arguments.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

Applicant is respectfully reminded that it is required that all claims be amended to elected group. Examiner also warns Applicant not to introduce new matter when amending.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Mabry, PhD whose telephone number is (571) 270-1967. The examiner can normally be reached on M-F from 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's primary examiner can be reached at (571) 272-0684, first, or the Examiner's supervisor,

Janet Andres, PhD, can be reached at (571) 272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/John Mabry/  
Examiner  
Art Unit 1625

/Rita J. Desai/  
Primary Examiner, Art Unit 1625